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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,042	01/09/2004	Mou-Shiung Lin	MEGP0004USA1	8665
27765	7590	06/16/2009		
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			EXAMINER JACKSON JR, JEROME	
			ART UNIT 2815	PAPER NUMBER
			NOTIFICATION DATE 06/16/2009	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

winstonhsu.uspto@gmail.com  
Patent.admin.uspto.Rcv@naipo.com  
mis.ap.uspto@naipo.com.tw

<b>Office Action Summary</b>	<b>Application No.</b> 10/755,042	<b>Applicant(s)</b> LIN ET AL.	
	<b>Examiner</b> Jerome Jackson Jr.	<b>Art Unit</b> 2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 163-208 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 163-208 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/8/09</u> .  | 6) <input type="checkbox"/> Other: _____                          |

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/10/09 has been entered.

***Claim Rejections - 35 USC § 112***

The rejections under 112 1<sup>st</sup> paragraph are removed. Applicant has argued support for the broader “polymer” designation because specific polymers have been disclosed. This argument is considered convincing, however, enablement for any “polymer” claim recitation should be considered constrained to the specific disclosed polymers. Use of the broader generic term, polymer, here is not considered new matter because a specific polymer is not disclosed as an essential part of the invention. MPEP 2163.05.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 163-208 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 163 “a portion” is indefinite: a portion of what? Other claims are rejected for dependence on claim 163.

The drawings are objected to because figures 6 and 8 delineate conflicting areas for 620 and 640. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 163-208 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eichelberger with Wagner and Wachtler, of record.

The previous rejection still applies. The new limitations regarding the "passive device" are not considered to distinguish over the applied art because, as stated

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previously, there are no material distinctions between “passive devices” in the claims and the inherent capacitance, resistance and inductance of overlying metal lines disposed directly over the chips in the applied art.

Claims 163-208 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eichelberger with Wagner and Wachtler and Cole, of record.

The previous rejection still applies.

Claims 163-208 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eichelberger with Wagner and Wachtler and further in view of Shanefield 4,866,501 and Keil 5,541,442.

In regard to the new limitation “a passive device...directly over...said first portion”, Shanefield discloses a circuit element 25 disposed over a chip in an arrangement similar to Eichelberger with multilevel wirings. Circuit elements are resistors, capacitors or inductors, from the “Background of the Invention” in Keil, likewise disclosing circuit elements of passive devices disposed over a chip in a multilevel metallization scheme. It therefore would have been a prima facie obvious step to integrate passive elements of inductors, resistors, or capacitors directly over chips and connected to multilevel metallizations, likewise located directly over chips.

Claims 163-208 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eichelberger with Wagner and Wachtler, Shanefeld and Keil, and further in view of Cole.

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As in the previous rejection, Cole suggests BCB material for its superior properties as an adhesive and in multilayer metallization schemes as Eichelberger. Claims reciting BCB material are prima facie obvious structure.

Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

As stated above, arguments the 35 USC 112 1st paragraph rejection are convincing and the rejection has been removed. It is also noted the claims no longer recite "polymer".

In regard to the prior art rejections, Eichelberger in figure 1 discloses bumps over insulation layer 104. Applicant's argument on page 17 of the remarks no bumps are over a "first portion" are therefore unconvincing.

Arguments regarding electroplated copper having properties not shown by the applied art are unconvincing of patentability because the alleged properties are not specifically claimed and therefore the claims do not distinguish over the applied art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Jackson Jr. whose telephone number is 571-272-1730. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker can be reached on 571-272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jerome Jackson Jr./  
Primary Examiner, Art Unit 2815